

ABSTRACT OF THE DISCLOSURE

Processing, in which a first shape-dependent filter in accordance with a shape of a microcalcification pattern is utilized, is performed on an object image, and a fine structure image, which illustrates a fine structure area embedded in the object image, is formed. Thereafter, enhancement processing, in which a second shape-dependent filter in accordance with the shape of a microcalcification pattern is utilized, is performed on the fine structure image, and an enhancement-processed image, in which the microcalcification pattern has been enhanced, is formed. A microcalcification pattern candidate is then detected by use of the enhancement-processed image.